



Patent Application  
Docket No. QUT-102

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Ari Aviram

Group Art Unit: 2823

Application No.: 10/714,083

Examiner: Coleman, William D.

Filed: November 15, 2003

Title: ELECTRICAL CONTACTS FOR  
MOLECULAR ELECTRONIC TRANSISTORS

**INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**CERTIFICATE OF MAILING**

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to Mail Stop Missing Parts, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

on August 17, 2005

*Jacqueline M. Arendt*  
Jacqueline M. Arendt

Sir:

This Information Disclosure Statement is submitted:

☐ under 37 CFR 1.129(a), or  
(First/Second submission after Final Rejection)

☐ under 37 CFR 1.97(b), or  
(Within any one of the following time periods: three months of filing national application (other than a CPA) or date of entry of the national stage in an international application; or before the mailing date of a first office action on the merits in a non-provisional application, including a CPA, or a Request for Continued Examination).

☒ under 37 CFR 1.97(c) together with either:

☐ a Statement under 37 CFR 1.97(e), as checked below, or

☒ a \$180.00 fee under 37 CFR 1.17(p), or  
(After the 37 CFR 1.97(b) time period, but before final action or notice of allowance, whichever occurs first)

☐ under 37 CFR 1.97(d) together with:

☐ a Statement under 37 CFR 1.97(e), as checked below, and

☐ a \$180.00 fee under 37 CFR 1.17(p), or  
(Filed after final action or notice of allowance, whichever occurs first, but on or before payment of the issue fee)

☐ under 37 CFR 1.97(i):

Applicant requests that the IDS and cited reference(s) be placed in the application filewrapper.  
(Filed after payment of issue fee)

Statement Under 37 CFR 1.97(e)

- ☐ Each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement; or
- ☐ No item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned, after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of this Information Disclosure Statement.

Statement Under 37 CFR 1.704(d) (Patent Term Adjustment)

Applies to original applications (other than design) filed on or after May 29, 2000

- ☐ Each item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart application and this communication was not received by any individual designated in § 1.56(c) more than thirty days prior to the filing of the Information Disclosure Statement.
- ☒ Enclosed herewith is an equivalent of form PTO SB/08a (1449) :
  - ☒ Copies of the cited references are enclosed.
  - ☐ Copies of cited references are enclosed except those entered in prior application, U.S. Application No. [        ], to which priority under 35 U.S.C. 120 is claimed. [The earlier application contains copies of the cited references.]
  - ☐ The listed references were cited in the enclosed International Search Report in a counterpart foreign application.
  - ☐ The "concise explanation" requirement (non-English references) for reference under 37 CFR 1.98(a)(3) is satisfied by:
    - ☐ the explanation provided on the attached sheet.
    - ☐ the explanation provided in the Specification.
    - ☐ submission of the enclosed International Search Report.
    - ☐ submission of the enclosed English-language version of a foreign Search Report and/or foreign Office Action.
    - ☐ the enclosed English language abstract of correspondent application.

[ X ] It is requested that the information disclosed herein be made of record in this application.

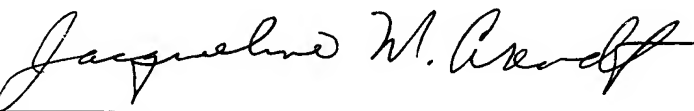
Method of payment:

[ X ] A check for the fee noted above is enclosed, or the fee has been included in the check with the accompanying Reply. A copy of this Statement is enclosed.

[ ] No fee is due.

Respectfully submitted,

Arendt & Associates Intellectual Property Group

By 

Jacqueline M. Arendt

Registration No.: 43,474

Tel.: (978) 897-8400

Fax: (978) 582-5547

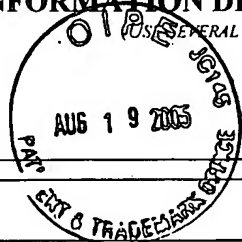
**Customer No. 44590**

Arendt & Associates Intellectual Property Group  
1740 Massachusetts Avenue  
Boxborough, MA 01719-2209

Date: August 17, 2005

# INFORMATION DISCLOSURE CITATION

(USE SEPARATE SHEETS IF NECESSARY)



ATTY DOCKET NO.

QUT-102

SERIAL NO.

10/714,083

APPLICANT(S) ARI AVIRAM

FILING DATE

NOVEMBER 15, 2003

GROUP 2823

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	1	6,339,227 B1	15 Jan 2002	Ellenbogen	257	40	1 Feb 1999
	2	4,912,531	27 Mar 1990	Reed et al.	357	12	29 Jun 1984
	3	6,259,277 B1	10 Jul 2001	Tour et al.	326	136	26 Jul 1999
	4	5,879,973	9 Mar 1999	Yanai et al.	438	161	2 Aug 1995
	5	6,320,200 B1	20 Nov 2001	Reed et al.	257	40	1 Feb 1996
	6	6,091,267	18 Jul 2000	Palm et al.	326	136	27 Feb 1998
	7	6,430,511	6 Aug 2002	Tour et al.	702	19	20 Jan 2000
	8	6,518,168	11 Feb 2003	Clem et al.	438	623	2 Nov 1998
	9	5,487,792	30 Jan 1996	King et al.	136	256	13 Jun 1994
	10	4,690,715	1 Sep 1987	Allara et al.	148	252	18 Jun 1982
	11	5,034,192	23 Jul 1991	Wrighton et al.	422	82.02	21 Jun 1989
	12	5,017,975	21 May 1991	Ogawa	257	40	12 Jul 1989
	13	6,482,639	19 Nov 2002	Snow et al.	435	287.2	22 Jun 2001
	14	5,536,573	16 Jul 1996	Rubner et al.	428	378	6 Jul 1994
	15	6,492,096	10 Dec 2002	Liu et al.	430	324	30 Aug 2000

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION		
							NO	YES	ABSTRACT

EXAMINER

DATE CONSIDERED

EXAMINER: Initial here if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<b>INFORMATION DISCLOSURE CITATION</b> (USE SEVERAL SHEETS IF NECESSARY)	ATTY DOCKET NO. <b>QUT-102</b>	SERIAL NO. <b>10/714,083</b>
	APPLICANT(S) <b>ARI AVIRAM</b>	
	FILING DATE <b>NOVEMBER 15, 2003</b>	GROUP <b>2823</b>

**U.S. PATENT DOCUMENTS**

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

**OTHER DOCUMENTS** (Including Author, Title, Date, Pertinent Pages, Etc.)

16	Aviram, A., "Molecules for Memory, Logic, and Amplification," <i>J. Am. Chem. Soc.</i> , 110: 5687-5692 (1998).
17	Aviram, A., "A View of the Future of Molecular Electronics," <i>Molecular Crystals and Liquid Crystals</i> , 234: 13-28 (1993).
18	DiVentra, M., <i>et al.</i> , "The benzene molecule as a molecular resonant-tunneling transistor," <i>Applied Physics Letters</i> , 76: 3448-3450 (2000).
19	Nuzzo, R.G. and Allara, D. L., "Adsorption of Bifunctional Organic Disulfides on Gold Surfaces," <i>J. Am. Chem. Soc.</i> , 105: 4481-4483 (1983).
20	Allara, D. L., <i>et al.</i> , "Evolution of Strategies for Self-Assembly and Hookup of Molecule-Based Devices," <i>Annals New York Academy of Sciences</i> , 852: 349-370 (1983).
21	Reed, M.A., <i>et al.</i> , <i>Science</i> , "Conductance of a Molecular Junction," 278: 252-253 (1997).
22	Aviram, A., <i>International Journal of Quantum Chemistry</i> , "A Strategic Plan for Molecular Electronics," 42: 1615-1624 (1992)
23	Carroll, R. Lloyd and Gorman, Christopher B., <i>Angew. Chem. Int. Ed.</i> , The Genesis of Molecular Electronics," 41: 4378-4400 (2002).

<b>EXAMINER</b>	<b>DATE CONSIDERED</b>
EXAMINER: Initial here if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	